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Atty's Docket:Bayer 10,218
USSN 09/719,320
HINZ et al.

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being transmitted by facsimile to the Assistant Commissioner For Patents, Washington, D.C. 20231, on April 21, 2003.

Theodore Gottlieb

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

SERIAL NO.	:	09/719,320
APPLICANT	:	HINZ et al.
FILED	:	March 5, 2001
EXAMINER	:	V. Balasubramanian
ART UNIT	:	1624
FOR	:	USE OF SUBSTITUTED 4-BIARYLBUTYRIC AND 5-BIARYLPENTANOIC ACID DERIVATIVES FOR THE TREATMENT OF CEREBRAL DISEASES

Hon. Assistant Commissioner of Patents
Washington, D.C. 20231

April 21, 2003

RESPONSE AND AMENDMENT UNDER 37 CFR 1.111

Sir:

This communication is in response to the non-final office action of October 21, 2003. Entry of the amendment and consideration of the claims is respectfully requested.

IN THE CLAIMS

Please amend claims 1-4 as indicated in the attach d clean c py of the am nded claims.

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CONDITIONAL PETITION FOR EXTENSION OF TIME

If any extension of time for this response is required, Applicants request that this be considered a petition therefore. Please charge the required fee to Deposit Account No. 14-1263.

ADDITIONAL FEES

Please charge any further insufficiency of fees, or credit any excess to Deposit Account No. 14-1263.

REMARKS

Claims 1-10, 12 and 13 are pending in the application.

All claims have been rejected under various statutory provisions. Each will be addressed in the order they appear in the action.

Claims 1-4have been amended. The amendments do not introduce new matter.

Applicants bring to Examiner's attention that she incorrectly indicated in the office action that GROUP XII was the elected group. However, this is not the case, as Applicants expressly elected **GROUP XI**.

Indefiniteness

Claims 1-9, and 12-13 were rejected for allegedly being indefinite. The Applicants have overcome the rejection with the following responses:

1. All recitations to "generalized formula" have been deleted.
2. The word "of" has been added after "compounds."
3. The preamble of claim 1 now adds the functional limitation requiring that the method employ therapeutically effective amounts of the compounds used in the method.
4. With respect to Examiner's objection to the last line of claim 1, Applicants have amended the claim to recite proper Markush language. However, Examiner seems to also indicate that reciting the plural of salts and prodrugs is improper.

In this, Applicants respectfully disagree. There is no basis in law or in the art to limit this or any method to require only one form of this or any compound. It is respectfully requested that Examiner reconsider and withdraw this objection.

5. The terms "comprising, comprises, contains and containing" were changed to the proper form of "consisting of" or "consists of" to render the claim less open ended.

6. With respect to the term "prodrug," this term has been deleted.

Lack of Enablement

Claims 1-9 were rejected because the specification allegedly supports only the treatment of cerebral disease, but not the prevention of cerebral diseases.

Applicants have communicated that they indeed have evidence indicating a preventive effect. A Rule 132 Declaration will be prepared and filed in a timely fashion.

It is respectfully requested that any final rejection based on the alleged lack of enablement stated above, be held in abeyance until submission of the declaration for Examiner's review.

PRIOR ART REJECTIONS

INTRODUCTORY COMMENT: None of the Cited References Provide an Enabling Disclosure Sufficient to Practice the Instant Claimed Subject Matter.

It is well established that a proper reference under 35 USC §§102 or 103 must be enabling in the sense of 35 USC §112, ¶1. It is suggested that none of the cited references can be viewed as even remotely providing *any* guidance for the claimed method. Pertinent is the following quote from *In re Le Grice,* 133 USPQ 365, 374 (CCPA 1962):

> "[T]he proper test of a description in a publication as a bar to a patent as the clause is used in section 102(b) requires a determination of whether one skilled in the art to which the invention pertains *could*

> *take the description of the invention in the printed publication and combine it with his own knowledge of the particular art and from this combination be put in possession of the invention* on which a patent is sought. [Emphasis added.]"

See also, *In re Hoeksema,* 158 USPQ 596, 601 (CCPA 1968), wherein the Court stated:

> "While *In re Le Grice* was bottomed on an issue arising under 35 U.S.C. 102 where the reference was a 'printed publication,' that test, in our view, is also properly applicable to issues arising under 35 U.S.C. 103."

The "test" for enablement for a reference, thus, is whether the prior art reference describes all sources and methodology in such detail that a person of ordinary skill in the art could reproduce the results reported therein.

Examiner has concluded that the instant specification is enabling for treatment of cerebral disease/brain trauma. See office action, page 7. A cursory examination of the cited references indicates that this cannot reasonably be found to be the case for them as well. Virtually all references are directed to the synthesis of various metalloprotease inhibitors. Therefore, in the context of teaching synthetic methods, *even if the references actually disclosed Applicants' preferred embodiments, these references could not render the claimed method obvious, let alone anticipate it, because the references do not disclose any methodology for treating any brain pathology.*

Therefore, Applicants' respectfully request that all prior art rejections be withdrawn in view of the foregoing remarks.

Applicants also provide comments below that directly the rejection based on the compounds disclosed in the references.

None of References Teach or Disclose the Claimed Method

The claims were rejected for allegedly being anticipated by references by Scott, Wolanin, Van Zandt, Bocan, Purchase, Kluender, and Dixon.

None of the references disclose the compound used in the claimed method, let alone the claimed method itself. In general, all the references, at most, disclose a large genus that only resembles the compounds in the claimed method. This is not sufficient to anticipate the claims.

If one of ordinary skill in the art is able to "at once envisage" the specific compound within the generic chemical formula, the compound is anticipated. One of ordinary skill in the art must be able to draw the structural formula or write the name of each of the compounds included in the generic formula before any of the compounds can be "at once envisaged." One may look to the preferred embodiments to determine which compounds can be anticipated. *In re Petering*, 301 F.2d 676, 133 USPQ 275 (CCPA 1962).

None of the references satisfy the rule in *Petering* because they (a) do not disclose the claimed compounds, and (b) even if they disclosed a genus that encompassed it, the genera disclosed in the references are too large to enable one to envisage the compound used in claim 1.

Scott does not specifically disclose the proposed compound thus not allowing persons of ordinary skill to envisage the compounds of the claimed method. In addition, there is no clear disclosure that Scott teaches or suggests the treatment of cerebral diseases. With respect to neurological conditions it discloses myelination disorders which are often located in the peripheral nervous system.

There is no disclosure of treating any brain injury or illnesses or conditions of the brain or central nervous system.

The same is true for Wolanin. In contrast to Examiner's assertion, Wolanin does not disclose the compound of any of the instant claims. None of the structures on pages 31-54 of Wolanin disclose the claimed compounds. Nor is there any suggestion for the desirability to modify his compounds in a way to arrive at the inhibitors of the instant claims.

A review of Table I in Wolanin where he lists "R_{25}" groups do not disclose even remotely similar structures. See Wolanin's Abstract for the location of R_{25}.

Therefore, neither Wolanin, nor Scott anticipate the claims. Further, they do not render the claims obvious. To do so, the references must teach or suggest the compound's structure, as well as demonstrating the basis for claiming its reasonable expectation of success in treating pathological brain disorders.

The arguments above are applicable with equal force to Van Zandt. Respectfully, review of pages 45-62, as suggested by Examiner do not reveal the compounds as described in the amended claims.

Further, Van Zandt provides no reasonable expectation of success in utilizing his disclosed compounds for treating brain trauma. Therefore, it is respectfully suggested that Van Zandt cannot reasonably teach or suggest (a) first modifying his compounds to obtain those in the claims; and (b) treat brain, e.g., cerebral trauma, with a reasonable expectation of success.

Bocan, Purchase and Kluender are structurally even further removed from the claims than are Van Zandt, Wolanin and Scott. In addition, neither shows how to actually use the inhibitor to treat any condition.

Accordingly, these references are not enabling for the claimed method.

CONCLUSION

Applicants have responded to all rejections and objecti ns.

The cited references disclose various large genera or sub-genera of inhibitors that are described by the instant application's generic formula, see claim 1. However, it is clear that this is not sufficient for anticipating or rendering obvious a method claim that uses a compound to treat brain trauma when (a) neither the method (b) nor the exact structure is disclosed by the references.

Even more easily appreciated is that the references cannot be viewed as enabling the claimed method. Although the references disclose potential medical uses of the inhibitors, these cursory references cannot suggest with a reasonable expectation of success how to treat brain trauma or degenerative disease states. Not one of the references teaches how to use it for treating brain injury or degeneration.

Examiner has indicated the instant specification does in fact enable such methods. In fact, Applicants will submit a Rule 132 Declaration demonstrating that these compounds also prevent similar conditions.

In view of the amendments and the foregoing remarks, Applicants respectively request withdrawal of all rejections.

Respectfully Submitted,

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